Honeywell | Connected Industrial

Elster Jeavons J125

Service gas pressure regulator for inlet pressures up to 8.6bar

Brief information

Operation: The J125 series provides a full range of regulators for service applications where accurate pressure control is required. The units are ideal for industrial pressure reducing, metering stations and for district distribution. The regulators are designed to maintain high accuracy and efficiency over the inlet pressure range of 70mb - 8.6bar (1-125 PSIG). The ¾" and 1" sizes are available with screwed connections.

Several orifices are available to cover the full inlet pressure range, together with a comprehensive number of outlet pressure springs.

The unit has been designed for ease of installation and servicing in confined areas. The diaphragm case can be fully rotated and, during inspection and servicing, the case can be removed without disturbing the pipework.

The J125 can be fitted with a full or limited capacity relief valve. It is recommended that the regulator be fitted with the Elster Jeavons Universal Safety Shut-off Assembly (USSA). This provides over pressure and/or under pressure protection with immediate shut-off at the regulator inlet. It uses well proven principles to give exceptional consistency of operation and an unrivalled insensitivity to nuisance tripping.

Application: All units are suitable for operation on natural, liquefied petroleum and manufactured gases. Various versions of this regulator comply with the requirements of BGC/PS/E26, IGE/TD/10, Danish DGP, BS3016 and numerous international specifications. The USSA unit is designed to meet the requirements of the standards BS EN 14382, GIS/V9-1 and TN02.

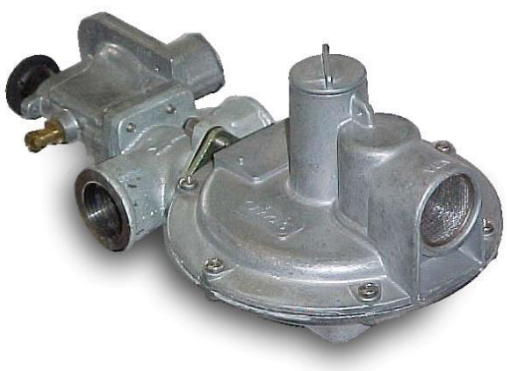
Technical Data:

Maximum inlet pressure:	8.6 Bar (125 psig)
Maximum outlet Pressure:	140mbar (64"wg)
OPSS range:	18 - 500mbar (7.5"wg – 7 psig)
UPSS range:	8 - 150mbar (3 – 60 "wg)

Approval: The ¾" and 1" J125 have been approved to Modulus B + D of the PED 2014/68/EU by BSI (Notified Body No. 0086). It is classified as Category IV equipment and a pressure accessory.

Servicing: The J125 has been designed for ease of access, inspection and servicing of all internal components. A standard soft spares kit is available for all sizes.

J125-S1 & S3	reference number SK2506-15
J125-S2	reference number SK2506-16
J125-S4, S6 & S8	reference number SK2506-17
J125-S5, S7, S9, S10, S11 & S12	reference number SK2506-18
J125-S13 & S14	reference number SK2506-20



Main features

- Sizes ¾" x ¾" & 1" x 1" (for 1½" & 2" see separate leaflet)
- Temperature range -20°C to +60°C
- Threaded connections to BS EN 10226 (ISO 7) or NPT (other threads may be available upon request)
- Internal impulse
- Spring loaded
- Excellent outlet pressure control

Options

- Full or limited relief valve
- Over pressure slam shut
- Under pressure slam shut
- Pressure test nipple.

J125 Service Regulator

Regulator Springs

mbar	"wg	Part Number	Colour Code
5 - 15	2 - 6	J12506-041	Lt Green / Yellow
12 – 25	4.8 – 10	J12506-042	Lt Green / Black
22 – 35	8.8 – 14	J12506-043	Lt Green / Orange
32 - 50	12.8 – 20	J12506-044	Lt Green / Brown
45 - 75	18 – 30	J12506-045	Lt Green / Red
72 - 140	29 - 56	J12506-046	Lt Green / Dark Blue

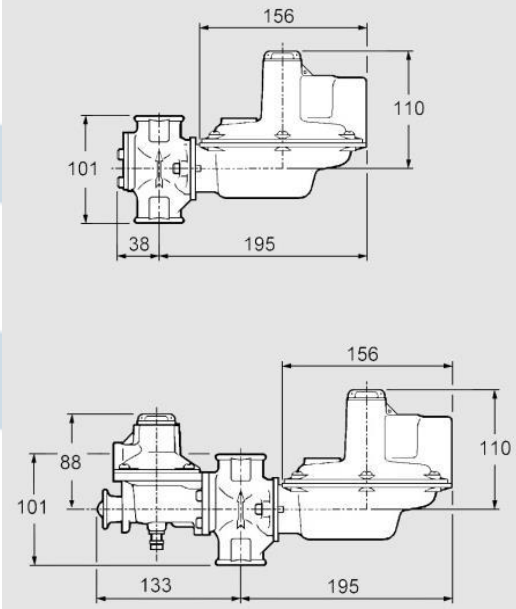
OPSS Springs

mbar	"wg	Part Number	Colour Code
18 – 60	7.5 - 24	J12506-281	Black
50 - 80	20 - 32	J12506-282	Orange
60 - 110	24 - 44	J12506-283	Red
100 - 210	40 - 84	J12506-284	Dark Green
200 - 350	3 – 5 PSI	J12506-287	Yellow
280 - 500	4 – 7 PSI	J12506-288	White

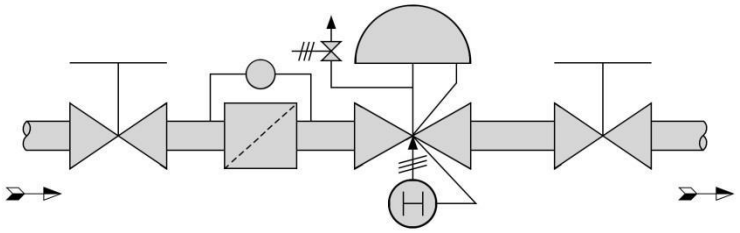
UPSS Springs

mbar	"wg	Part Number	Colour Code
8 - 16	3 - 6	J12506-285	Light Blue
16 - 60	6 - 24	J12506-286	Brown
60 - 150	24 - 60	J12506-289	Purple

Dimensions



Schematic Installation



J125 Versions

The following table indicates the code numbers of the various J125 versions available.

TYPE	Full Capacity Relief (FR)	Limited Capacity Relief (LR)	Over Pressure Slam Shut (OPSS)	Under Pressure Slam Shut (UPSS)	Safety Diaphragm	Unit Weight (Kg)	
						Screwed	Flanged
J125-S1						1.8	4.5
J125-S2	✶					1.8	4.5
J125-S3		✶				1.8	4.5
J125-S4	✶		✶			2.3	5.0
J125-S5		✶	✶			2.3	5.0
J125-S6	✶			✶		2.3	5.0
J125-S7		✶		✶		2.3	5.0
J125-S8	✶		✶	✶		2.3	5.0
J125-S9		✶	✶	✶		2.3	5.0
J125-S10			✶			2.3	5.0
J125-S11				✶		2.3	5.0
J125-S12			✶	✶		2.3	5.0
J125-S13			✶		✶	2.3	5.0
J125-S14			✶	✶	✶	2.3	5.0

J125: Service Regulator

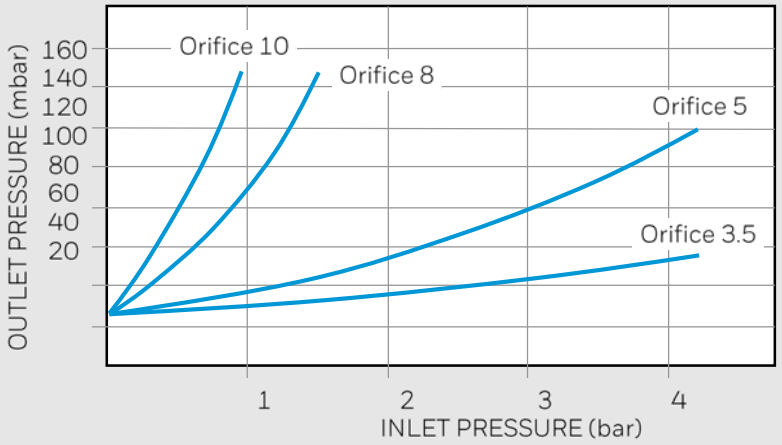
Regulating Capacities

3.5mm Orifice All capacities in SCMH 0.64 s.g. Droop = 20%

Spring Range	5 - 15	12 - 25	22 - 35	32 - 50	45 - 75	72 - 140
Setting Pressure	10	20	30	40	60	100
Inlet Pressure (mbar)						
250	6.2	5.5	5.7	6.2	5.9	5.6
500	8.4	7.7	9.1	9.7	9.7	8.9
750	11.7	10.9	12.0	12.4	12.5	11.9
1000	15.5	13.7	14.1	14.0	14.0	14.8
1250	16.7	16.5	15.7	15.6	15.6	16.5
1500	18.5	18.4	17.8	17.3	17.3	18.1
2000	22.0	20.7	20.5	20.4	20.3	21.7
2500	25.6	25.3	24.7	23.9	23.9	24.6
3000	28.8	28.3	27.8	27.9	27.6	28.3
3500	33.1	32.1	31.3	30.9	30.9	31.9
4000	36.5	36.0	34.9	34.5	34.5	35.5
5000	43.9	43.9	44.0	44.1	44.1	42.8
6000	51.3	51.3	51.4	51.5	51.2	51.1
7000	58.5	58.5	58.2	58.3	58.4	58.5
8000	65.7	65.7	65.7	65.7	65.7	65.8
5mm Orifice						
250	8.3	9.9	10.0	10.0	10.4	9.3
500	18.3	16.8	17.4	15.7	16.1	15.3
750	25.1	23.0	23.4	21.2	22.8	19.2
1000	28.4	28.9	28.5	28.6	27.2	26.1
1250	32.8	32.4	32.4	32.6	32.6	30.7
1500	36.7	36.5	35.5	35.9	36.4	34.6
2000	43.6	43.6	42.7	42.7	42.8	41.5
2500	50.9	50.3	49.9	50.2	51.2	49.7
3000	59.1	57.6	57.1	58.0	58.2	57.4
3500	66.3	64.9	63.7	65.1	65.1	64.3
4000	72.4	71.9	71.6	72.6	72.0	72.9
5000	85.8	85.8	85.8	85.8	85.9	85.9
8mm Orifice						
100	13.6	12.8	12.1	11.3	9.4	-
250	15.5	21.2	21.0	21.2	21.0	14.9
500	36.6	38.4	38.4	35.8	34.7	29.2
750	52.6	53.4	51.9	49.4	49.4	40.2
1000	63.5	62.1	62.5	62.9	63.9	47.5
1250	75.7	72.4	77.3	73.1	76.4	55.9
1500	81.2	78.4	87.2	84.0	83.9	65.8
2000	105.3	92.1	103.6	104.2	100.3	84.5
2500	118.4	111.9	121.7	120.7	116.8	108.2
10mm Orifice						
50	13.3	8.4	6.9	-	-	-
100	14.4	13.7	12.9	11.9	9.8	-
250	25.6	25.6	27.4	26.3	25.6	21.9
500	43.9	43.9	45.4	43.9	42.0	34.7
750	62.1	62.8	65.6	62.1	62.5	53.0
1000	76.8	82.3	81.5	76.8	73.1	73.1
1250	91.4	95.0	93.6	91.0	87.7	89.6
1500	102.4	105.3	106.7	107.8	104.1	94.9
1700	113.5	113.5	117.8	115.2	115.2	104.2

J125: Service Regulator

Relief Valve



The data represented in the graph left shows the rise in outlet pressure above the set point against change in inlet pressure at a full fault situation.

Orifice Sizes

Orifice Size (mm)	Maximum Inlet Pressure
3.5	8.6 bar (125 PSIG)
5	5.2 bar (75 PSIG)
8	2.4 bar (35 PSIG)
10	1.7 bar (25 PSIG)

For optimum regulator performance, the largest permissible orifice size should be selected from this table. For the optimum relief valve performance, the smallest orifice should be selected.

Material Specifications

A summary of the material specification for the J125 is given for reference. All material has been selected to provide maximum durability and reliability in service.

Components	Specification
Regulator Body	S.G. Iron
Valve Seat	Brass
Regulator Valve Disc and "O" rings, USSA Diaphragm, Safety Diaphragm	Nitrile Synthetic Rubber (Buna)
USSA Valve Disc and "O" rings	Nitrile Synthetic Rubber
Regulator Valve, USSA Valve	Aluminium Alloy
Regulator Case and Cover, USSA Body and Cover	Aluminium Alloy
Regulator and USSA Valve Spindle	Stainless Steel BS EN 10088-3
Regulator Diaphragm	Reinforced Synthetic Rubber
Relief Valve, Spring Holders, USSA Internals	Acetal Resin
Lever Arm, Regulator Diaphragm Plate, Vent Valve Plates, Clamping Plate	Mild Steel, Zinc Plated and Coated
Springs	Carbon Steel, Zinc Plated and Coated

Quality:
Honeywell is committed to a programme of continuous quality enhancement. All equipment designed and manufactured by Honeywell benefits from the group's quality assurance standards which are approved to EN ISO9001.

Your Contacts: